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ABSTRACT

Over the last 3 decades or so, English and its related disciplines of Rhetoric and Composition have adopted new tools of research--tools other than the traditional ones of narrative and description. These other tools are empirical or scientific, those that are common to the social sciences, including experiments, case studies, surveys, and think-aloud protocols. The response to this infusion of scientific method has been mixed. It is possible that stories do have their place in scholarship. Scholars do not need to choose one research approach over and to the exclusion of another, since there is not really an inherent opposition among them. In fact, a strong case could be made that the narrative is the foundation out of which scientific inquiry emerges. If it is undeniable that narrative is a powerful discourse, that in one form or another it pervades human thought processes, the fact remains that the English discipline probably cannot live without scientific research, as it brings valuable, fresh perspectives to research. Russell Hunt's study of faculty and students' diverse interpretations of Graham Greene's "The Second Death" shows how narrative can be used responsibly, with a self-conscious sense of the limitations of the approach. (Contains 12 references.) (TB)

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Is Narrative a Viable Alternative to Scientific Discourse?

by

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As scholars in the field of English, we are very comfortable with the telling of stories. Stories in the form of narrative fiction, personal journals, biographies and autobiographies are some of the most prevalent kinds of texts we work with. We teach stories to our students, we encourage our students to tell their own stories, we tell stories to our colleagues. Stories are a very natural kind of discourse for us as scholars, as writers and as human beings.

Over the last three decades or so, English and its related disciplines of Rhetoric and Composition have adopted other tools of scholarly inquiry that are variously lumped under the label of scientific, empirical research. By "empirical" or "scientific" research methods, I am referring to methods that are common to the social sciences, including: experiments, case studies, ethnographies, surveys, and think-aloud protocols. Empirical research brings with it not only new methods, but also tools and a vocabulary that seem strange and intimidating to the uninitiated; things like statistics, control groups and manipulations.

The response to this infusion of scientific method has been mixed. Some of us feel uncomfortable—we thought we had left mathematics behind, but now we are confronted with numbers all over again. Some of us welcome empirical research as a much-needed and useful development within our field that can yield fruitful results in the classroom and facilitate participation in the larger scholarly community that encompasses not just English scholars, but scholars from the social and physical sciences as well. Some of us have voiced criticism against the intrusion of empirical methods into our field, viewing them as "positivistic," "controlling," and

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"manipulative." Some of us have not made up our minds as to what we think about empirical methods.

The purpose of my talk is not to resolve the controversies surrounding empirical research in the field of English. Nor can I even adequately capture the terms of the debate and do justice to the many voices participating in that debate. I am also side-stepping the complex epistemological issues that crop up with regard to empiricism; for example, whether objectivity is possible and whether science in fact makes unqualified claims about its own objectivity. Rather, I want to argue that stories do have their place in scholarship, that we needn't be misled in thinking that we must choose either stories or science, that we can have both. If, however, we decide to choose narrative over other empirical methods as a tool of scholarly inquiry, if we choose to view it as a viable alternative to scientific discourse, we must understand what stories can and cannot do.

Before I go farther with this point, I need to explain what I mean by a "story" or a "narrative." Generically speaking, a narrative is an account of events or actions that is usually organized chronologically or temporally. Narratives are context-sensitive; they tend to provide detailed descriptions of one or a few incidents or people, as opposed to large samples in which individual context and detail is lost. Beyond this, it is difficult to pin down what is meant by story, so let me offer a range of alternatives and locate my position therein. Some theorists conceive of narrative in terms of literary fiction. I don't believe that narrative needs to be limited only to fiction or to a canon of literature; personal stories that recount actual events, whether or not they fit the definition of "good literature" are also narratives and they deserve to be included. Some theorists construe narrative so broadly that they include under the category of "narrative" all forms of human communication. In my view, this precludes the possibility of capturing useful and necessary distinctions among types of discourse; for example, the difference between very formal kinds of discourse, such as mathematical and philosophical proofs (which in my definition are not stories), as compared to ethnographies, which are closer to what I consider to be "narrative." Some narrative theorists are mainly interested in structural and formal aspects. Their main focus is on the

narrative "text," and its manifestations of mimetic, semiotic and linguistic features. Here, I'm going avoid such a preoccupation with the formal features of narrative, and instead take a less technical approach. In other words, I am operating from a conception of narrative that is neither so narrow that it excludes personal stories, nor is it so broad that it obscures differences between narrative and non-narrative discourse. It is a common-sense, everyday conception of narrative as a story of events that can be fictional or true, personal or public.

One of the reasons why I think it is unnecessary to have to choose between either narrative or science is because from one vantage point, there is not inherent opposition between these two discourse types. In fact, a strong case can be made that narrative is the foundation out of which scientific inquiry emerges. As Roger Schank (1990) has convincingly argued, human experiences are understood and remembered in the form of stories, knowledge is stories. It is from experience that scientists learn which variables surrounding a given situation are important and which variables can be ignored. From their observations, which are grounded in experience, scientists generate hypotheses and later test them under more controlled conditions. But the whole process of inquiry begins with the story, a story of some event, some observation. Narratives, then, when they describe non-fictional human experience, are empirical; they are derived from experience. One of the more obvious examples of empirical narratives in scholarly inquiry are ethnographies and anthropological studies. But even the so-called hard sciences that use experimental methods may claim narrative as a foundation of inquiry. Let me give an example (Taton 1970). Before the middle of the last century, women in labor who went to maternity hospitals to give birth were terrified of a deadly blood poisoning called puerperal fever. One of the official explanations as to the cause of the disease was "hospital miasma," or bad air. In 1946, a doctor who worked in the maternity ward at Vienna General Hospital by the name of Ignaz Semmelweiss tested the official explanation against his own experience, and he came up with a better explanation as to how puerperal fever was transmitted. He noticed two things that lead him to his discovery. First, during the autopsy of a laboratory assistant who had died of an infection contracted during a dissection, Semmelweiss noticed that some of the anatomical and pathological symptoms of the lab assistant were similar to

those of women who had died of puerperal fever in the maternity ward. Second, he noticed that in those wards where midwives, rather than medical students, were responsible for the patients, the death rate was much lower. What could be the connection between these two observations?

Semmelweis came up with an explanation: medical students were spreading the disease: they were treating their patients after coming from the dissecting rooms without taking any hygienic precautions. The midwives, by comparison, were not involved in autopsies. Semmelweis came up with a remedy: he required that his students wash their hands in chlorinated lime water and scrub their fingernails before entering the main ward. His actions stirred up a firestorm of controversy from the hospital administration, but the results were dramatic. Within two months, the death rate from puerperal fever fell from 12.5% to 2%. However, the Viennese medical establishment still refused to accept Semmelweis's account of how the disease was transmitted, and they fought bitterly against his thesis and blocked his attempts to institute widespread antiseptic practices in throughout hospital. Eventually, Semmelweis was forced to resign from the hospital, and it took years before his antiseptic practices became common procedure. Eventually, other scientists would test Semmelweis's findings, subjecting his hypothesis to rigorous experiments in the laboratory, discovering the microbe responsible for puerperal fever, and inventing antibiotics that could treat the disease. The point I'm trying to make here is that the hard-core scientific inquiry into the transmission and treatment of a puerperal fever began with a story of events derived from one man's experiences. That narrative provided fertile ground out of which grew an important medical discovery, and changed the way the medical establishment viewed disease and hygiene.

It is undeniable that narrative is a powerful discourse, that in one form or another, it pervades the way we understand our experiences and interact with each other. But the question is, can we, as English scholars and teachers, live by story alone? Can we begin and end our inquiry with the story, and ignore other research methods, such as controlled experiments? Ought narrative be the only tool in our methodological toolbox? There are many in the field who would answer "yes." The virtue of narrative, argue some, is that it avoids many of the flaws of traditional science. Narrative is contextual and embedded, it takes into account real situations, real people, it makes

room for a multiplicity of voices, it does not make absolute assumptions about its own objectivity or the truth-status of its claims. The problem I have in viewing narrative as the only viable alternative to scientific discourse is that it needlessly limits our options when we are choosing tools that can best help us carry out our research. If we convince ourselves that narrative is the only tool we need—the only tool we ought to have—then we may be tempted to overlook the limitations of narrative and believe that it is a multi-purpose tool with seemingly infinite applications. As a wise person once said, if the only tool in your toolbox is a hammer, everything starts to look like a nail. But we know the world is not made up only of nails, and we know that we need a variety of options in our endeavor to carry out scholarly inquiry.

Still, narrative enjoys a favored status in our field, and I don't expect that will radically change anytime soon. If we accept narrative as a mode of discourse and as a method of inquiry, we must realize that narrative, like any method, it has its limitations. Those who choose stories as an alternative to other kinds of scientific discourse are not absolved from the same kind of ethical responsibility to which scholars from all disciplines must adhere. If we use stories as a means of understanding the world and communicating that understanding to others, it is our responsibility to be honest about what our stories can and cannot do as research tools.

What does it mean to be responsible and honest about what stories can do? It means acknowledging the limitations of our stories, knowing just how generalizable the "moral" of our story is. In empirical terms, this means hedging our claims, being careful that we don't make a bigger claim than the evidence can support. It also means being aware of how typical of human experience our stories are. "Typicality" asks the question: "If we checked with more people in the same situation, how many would have similar stories?" If the answer is that most stories would be the same, then we know that that particular story is representative of a larger population, that its description of human experience holds true for many people beyond those involved in the immediate story.

If however, the story is atypical, that it does not hold true for most people in a similar situation, then we need to inform our listeners of this fact. Why? Because stories have consequences: they influence our perception of the world and they influence the actions we take. To represent a story as typical of human experience when in fact it is exceptional can be unethical and may lead to harmful consequences. Let me give an example. A few years ago, a group of psychologists (Slovic, Fischhoff, Lichtenstein 1982) looked at how frequently newspapers reported various causes of death. They wanted to know whether statistically frequent causes of death got more coverage than statistically infrequent causes of death. What they found was that there was no correlation between the frequency of a given cause of death and the amount of coverage it got in the newspapers. In fact, for some lethal events, such as diseases, accidents and homicides, there was an inverse correlation between the frequency with which these events were reported and the actual statistical likelihood of their occurrence. For example, diseases such as cancer and emphysema take about 16 times as many lives as accidents and 100 times as many lives as homicides, yet the newspapers printed 3 times as many articles about accidents and homicides as they did about disease. Newspapers are the storytellers. What effect might their storytelling have on their readers? Well, the researchers asked ordinary people to estimate the number of deaths resulting from these various causes. They found that people's judgments about lethal events tended to correlate with the frequency with which newspapers reported these events. In other words, people tended to overestimate the number of deaths resulting from statistically infrequent events such as homicides and accidents, and they tended to underestimate the number of deaths from statistically more frequent events such as cancer and emphysema. What this study suggests is that there is a connection between the stories that people are exposed to in the media and their assessment of danger in the world. So where does the ethical responsibility come in? Well, if you believe that people might change their actions based on what they believe about the world, then the issue of typicality in storytelling becomes important. Consider plane crashes. They often make headline news. One could imagine that, after reading or hearing about a catastrophic plane crash, some people would decide to drive to their next destination rather than fly because they believe from the

newspapers and t.v. reports that airplanes are dangerous—more dangerous than cars are. But driving is statistically far more dangerous than flying; annually, in the United States, about 43,000 people die in car crashes, as compared to about 200 who die in commercial plane crashes. But the media tends to report every commercial plane crash—that is big news—but they don't report every car accident. John Graham of the Harvard Center for Public Policy explained it this way: "What is news is not necessarily the biggest public health problem. The mysterious, the bizarre, the speculative make good news. But the day-to-day problems people have in traffic crashes as they end up in the emergency rooms, thousands of Americans everyday, that is the kind of problem that we need to get attention to, but that the media doesn't have a hook to sell it." What is at stake here is the issue of typicality, the perspective that people have about the world. If people's perception of risk is based almost entirely on the stories they get from the media, they may take action based on that perception that is at best misinformed and at worst counter-productive. I believe that a strong ethical argument can be made that media people, as storytellers, must realize the awesome power their stories have in influencing people's beliefs and actions, and that they must take some responsibility for that power. At the very least, they ought to put their stories into perspective, to acknowledge just how representative of the larger population their stories actually are.

My point is that we must be honest about how typical our stories actually are. I am not suggesting that a-typicality is a bad thing. On the contrary, a-typicality can be one of the most valuable functions that narrative can have, especially in scholarly research, but again, the storyteller must be honest about the representativeness of his or her story. Let me give an example of a researcher in our field who is honest about the possibility that his story may not be typical of others in a similar situation. About ten years ago, Russell Hunt conducted a study that sought to address the question of what really happens when students read rich and complicated literary texts. He chose a piece of short fiction—Graham Green's "The Second Death"—divided it into nine sections, and presented each section, one at a time in order, to a group of readers consisting of students and faculty members. After each section, he asked the readers to respond to questions, such as "what do you think will happen in the next 50-100 words?" "What do you know about the

narrator so far?" He wrote up his results as a dual narrative—he presented passages of the Graham Greene story, while at the same time narrating what happened when his students and colleagues read that same passage.

Hunt structured his inquiry as both a way of understanding what happens when students read, and as a pedagogical tool that could help his students have deeper insights into the story. He expected that his students would, in his words, "have the sensation of the story's meaning explode on their consciousness the way it did on [his] the first time [he] read [it]." "In some ways," he wrote, "this whole exercise has been an attempt to find a way to help someone 'get' the story, like a joke, without having to explain it." The results surprised him: he realized that his students' and colleagues' reading of the story were radically different than his own. They didn't get as strong an impression from the story as he did. In fact, as far as he could tell, not a single one of his students understood the point of the story, nor could they appreciate its irony. They were confused. The value of Hunt's study lies in its atypicality: it produced results that were unexpected and surprising. It challenged Hunt's ideas and assumptions about the relationship between readers and text. In commenting on his study, Hunt writes: "the ease with which I assumed that I knew what Graham Green's story was 'about' or 'did' seems to me a very strikingly questionable assumption. Almost equally important is what I now see as my underestimation of the power of the reading situation, that is, the way the students and my colleagues understood the social situation of my study—their task, my purposes—to alter the stances readers take toward texts..." (p. 71)

Besides the fact that Hunt's narrative provides a challenge to his assumptions about the reading situation, what gives his inquiry credibility is that he is responsible about what his story of his experience can and cannot do. For example, he does not make more claims for his findings than are warranted. As he puts it, "I should make clear that I'm not offering this work as empirical evidence of some general state of affairs, nor would I argue that my results are statistically significant." He does not, for example, claim that his study can give instructors fool-proof

methods for helping students become better readers. He does not say that his students are typical, that their attitudes and actions are identical to that of other students across other classrooms. He does not say that if you were to try the same exercise on your students, you'd get the results that he got. In a way, this is unfortunate, because we are all looking for techniques that can be applied in the classroom, for ways we can help our students become better readers, for answers that can help us better understand the what happens when readers read. Tempting as it is to offer definitive answers, Hunt can only honestly offer descriptions of his own experience, he can only offer hypotheses that attempt to explain what happened.

But the limitations of his story, its a-typicality, have their own utility. The fact that his study displays an ignorance of the methods of statistical inference, a lack of generalizability—are its strong suits, he argues. While acknowledging the limits of his story, he turns those limitations into advantages. As he puts it, "It did push me, and may have pushed some of those who heard it at the conference or read it in manuscript, toward looking hard at what individual readers were doing (as opposed, for instance, to looking for statistical generalizations across readers)."

The point I'm trying to make here is that we have a responsibility to be honest when we tell our story about the world. As Wayne Booth (1984) observed, "narrative in all its forms...has an awesome power to work good or ill in our lives." The effects that our stories have on others depends not just on the content of the story, but also on the claims we make about the story, on the conclusions we draw from it. Our ethical behavior as human beings, as scholars and as teachers requires that we treat the power of stories with respect, that take responsibility for the limitations of our stories, and that we communicate those limitations honestly.

Works Cited

- Booth, Wayne. "Narrative as the Mold of Character." Paper presented at Language of Inner City Schools 17th Conference, London, England, July 1984.
- Graham, John. Quoted in *Are We Scaring Ourselves to Death?* An ABC News Special Presentation. MPI Home Video, 1991.
- Hunt, Russell. "What Happens When Our Students Read, and What Can We Do About It?" In *Reading Empirical Research Studies: The Rhetoric of Research*, edited by John R. Hayes, Richard E. Young, Michele L. Matchett, Maggie McCaffrey, Cynthia Cochran, Thomas Hajduk. Hillsdale: Lawrence Erlbaum, 1992. 43-74.
- Schank, Roger. *Tell Me a Story: A New Look at Real and Artificial Memory*. New York: Charles Scribner and Sons, 1990.
- Slovic, Paul, Baruch Fischhoff, and Sarah Lichtenstein. "Fact Versus Fears: Understanding Perceived Risk." In *Judgment Under Uncertainty: Heuristics and Biases*, edited by D. Kahneman, P. Slovic, and A. Tversky. Cambridge: Cambridge University Press, 1982. 463-489.
- Taton, R. Excerpt from *Reason and Chance in Scientific Discovery*, John Wiley & Sons. Reprinted in *Rhetoric: Discovery and Change* by Richard E. Young, Alton L. Becker, and Kenneth L. Pike. San Diego: Harcourt Brace Jovanovich, 1970. 158-159.

Background Readings

- Bal, Mielke. "First Person, Second Person, Same Person: Narrative as Epistemology." *New Literary History* 24 (1993): 293-320.
- Code, Lorraine. *What Can She Know? Feminist Theory and the Construction of Knowledge*. Ithaca: Cornell University Press, 1991.
- Harding, Sandra, ed. *Feminism and Methodology*. Bloomington: Indiana University Press, 1987.
- Kreisworth, Martin. "Trusting the Tale: The Narrativist Turn in the Human Sciences." *New Literary History* 23(1992): 629-657.

Schleifer, Ronald, Robert Con Davis, and Nancy Mergler. *Culture and Cognition: The Boundaries of Scientific Inquiry*. Ithaca: Cornell University Press, 1990.

Tuana, Nancy, ed. *Feminism and Science*. Bloomington: Indiana University Press, 1989.